

48386-1  
Split  
Work Order ID 48386

June 26, 2009 12:39:33 PM



DREQ 54988

Page 1

Item ID: D3560-042

Revision ID: D

Item Name: Arm Weldment

Start Date: 15/07/2009 Start Qty: 8.00

Required Date: 03/08/2009 Req'd Qty: 8.00

Reference:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Approvals: Process Plan:

QC:

Date: 06-01-04

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3560

Rev D

100



Bandsaw

BAND SAW

0.00

Jcaspa Bandsaw

Memo

Cut blanks 16.750" long

0.00

110



HAAS I

HAAS CNC VERTICAL MACHINING #1

0.00

Memo

0.00

HAAS CNC vertical machine #1

1- Mill as per Folio FA694 Rev: \_\_\_\_\_ & Dwg D3560 Rev: \_\_\_\_\_ 2-C'sink  
0.196" hole on manual mill as per dwg D3560 3-Deburr per dwg D3560

120



QC

QC2- Inspect parts off machine FAI/FAIB

0.00

Quality Control

Memo

0.00



# Work Order ID 48386

June 26, 2009 12:39:33 PM



Page 2

Item ID: D3560-042  
Revision ID: D  
Item Name: Arm Weldment

Accept



Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 8.00  
Required Date: 03/08/2009 Req'd Qty: 8.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:  
QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

140

Large Fab

0.00



Large Fab

Memo

0.00

Large Fab

1-Weld assembly as per dwg D3560 STEP: 1- clean material (buff bracket and bottom of arm with blue pad ) 2- set up bracket and arm on jig 3- preheat bracket and arm with torch 4- clean before welding with brush 5- set up machine to 135 amps 6- weld across

10.01.04

1

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 10/01/04

HL



# Work Order ID 48386

June 26, 2009 12:39:33 PM



Page 3

Item ID: D3560-042

Accept



Setup Start



Revision ID: D

Item Name: Arm Weldment

Stop



Start Date: 15/07/2009 Start Qty: 8.00



Required Date: 03/08/2009 Req'd Qty: 8.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Memo

0.00

Quality Control

PD

10.01.04

170

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

10.01.04 1

180

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

m.k  
10/01/04 (IX)





# Work Order ID 48386

June 26, 2009 12:39:33 PM



Page 4

Item ID: D3560-042  
Revision ID: D  
Item Name: Arm Weldment

Accept



Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 8.00



Required Date: 03/08/2009 Req'd Qty: 8.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:  
QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190



Small Fab

Small Fab

0.00

Memo

0.00

Small Fab

1-Press bushing in D3560 arm per dwg D3562

200



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

210



Packaging

Packaging

Identify as per dwg & Stock Location: WA

0.00

Memo

0.00

*Handwritten signature and date 10/01/04*

*Handwritten note: => 5.10.01.04*

*Handwritten note: PK 10.01.04*

*Handwritten circled 'N'*

*Handwritten '1'*





# Work Order ID 48386

June 26, 2009 12:39:33 PM



Page 5

Item ID: D3560-042  
Revision ID: D  
Item Name: Arm Weldment

Accept



Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 8.00  
Required Date: 03/08/2009 Req'd Qty: 8.00



Cust Item ID:

Customer:



Reference:

Approvals: Process Plan:  
QC:

Date:  
Date:

Tooling:  
SPC (Y/N):

Date:  
Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

220

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10-01-05

Pbl 10-1-04



# Picklist Print

June 26, 2009 12:39:32 PM

Page 1

Work Order ID: 48386

Parent Item: D3560-042RevD

Parent Item Name: Arm Weldment




Comments:

Start Date: 15/07/2009

Required Date: 03/08/2009

Start Qty: 8.00

Required Qty: 8.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2808RevB 		Manufactured	No			100	Each	0.0000	8.0000		05/10/01/04	
Bushing M6061T6B0.500X05.00 0		Purchased	No			140	f	0.0000	11.7474			
												
6061-T6 Bar .500 x 5.00 D3592-1RevB		Manufactured	No			190	Each	0.0000	8.0000		09.12.29	
												
Plate											09.12.29	

*[Handwritten mark]*

*[Handwritten mark]*

*m 112154 = 1*

*B 42517 = 1*

*342181*

*09.12.29*

*09.12.29*



## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services

Drawing Name : ARM

Part Number : 48386

Part Number : 12882

Part Number :

Issue Date : 08/06/2009 S.O. No. :

Issue Date : NC

Issue Date : / /

Previous Run : 47864

Issued By :

Checked & Approved By :

Comment

Type : MACHINED PARTS

Part Number : D3560042

Drawing Number : D3560 REV D

Project Number : N/A

Drawing Revision : D

Material :

Due Date : 15/06/2009

Qty: 8 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation:

Description :

1.0

M6061T6B0500X05000

6061-T6 Bar .500 x 5.00



Comment: Qty.: 1.4648 f(s)/Unit Total: 11.7180 f(s)

6061-T6 Bar 0.50" x 5.00"

Batch: M112154

mf 09/07/06

(8)

2.0

BAND SAW

BAND SAW



Comment: BAND SAW

Cut blanks 16.750" long

mf 09/07/06

(8)

3.0

HAAS1

HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1- Mill as per Folio FA694 Rev: B & Dwg D3560 Rev: D

2-C'sink 0.196" hole on manual mill as per dwg D3560

3-Deburr per dwg D3560

INSPECT PARTS AS THEY COME OFF MACHINE

4.0

QC2



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

mf 09/07/09

Dart Arms





Date: Monday, 08/06/2009 9:24:26 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ARM

Job Number: 48386

Part Number: D3560042

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

5.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

*Scs60705 (X8)*

6.0	D35921	Plate
-----	--------	-------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)

PLATE

7.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
-----	-------------	------------------------------



Comment: LARGE FABRICATION RESOURCE 1

1-Weld assembly as per dwg D3560

### STEP:

- 1- clean material (buff bracket and bottom of arm with blue pad )
- 2- set up bracket and arm on jig
- 3- preheat bracket and arm with torch
- 4- clean before welding with brush
- 5- set up machine to 135 amps
- 6- weld across bottom and top ends
- 7- reheat with torch ( 65 deg C )
- 8- on one side weld from bottom to top half way
- 9- same for other side (half way)
- 10- from half way point weld the rest of the first side (ease off pedal near end)
- 11- same for remaining side (ease off pedal near end)

*10.01.04*

8.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

*Scs60705 (X8)*

9.0	QC9	VISUAL WELDING INSPECTION
-----	-----	---------------------------



Comment: VISUAL WELDING INSPECTION

*10.01.04*





Date: Monday, 08/06/2009 9:24:26 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ARM

Job Number: 48386

Part Number: D3560042

Job Number:



Seq. #: Machine Or Operation: Description :

10.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1  
Chemical Conversion Coat as per QSI 005 4.1

*10-01-04*

11.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*M.B. 10/01/04*



12.0 D2808 Bushing



Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)  
Spacer *342181*

*5 EB 10/01/04*

13.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1  
1-Press bushing in D3560 arm per dwg D3562

*EB 10/01/04*

14.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

15.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
Identify and Stock  
Location: \_\_\_\_\_

16.0 QC21 FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



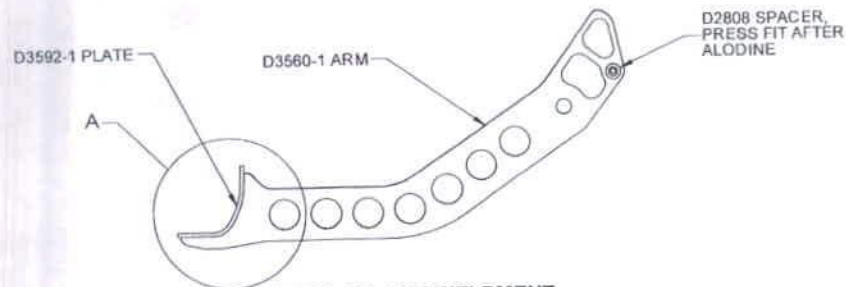




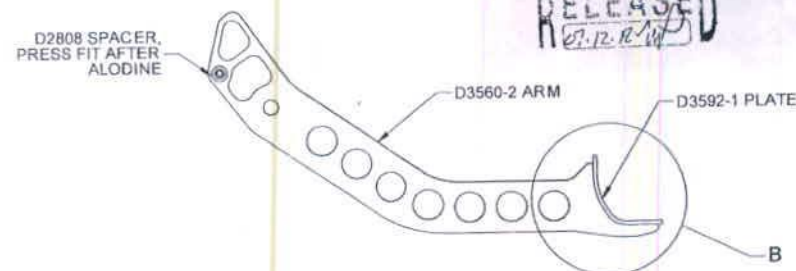




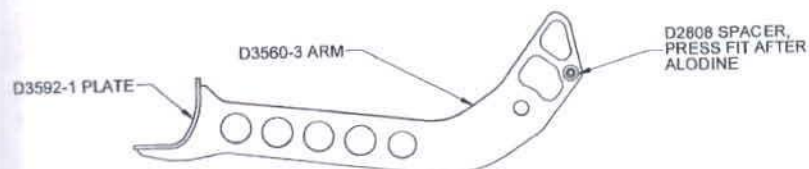
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07.12.16



**D3560-041 ARM WELDMENT**



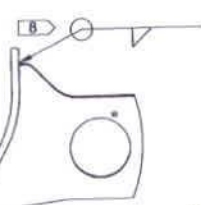
**D3560-042 ARM WELDMENT**



**D3560-043 ARM WELDMENT**



**D3560-044 ARM WELDMENT**



**DETAIL A  
SCALE 1:2**

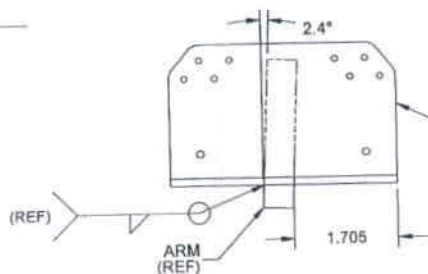
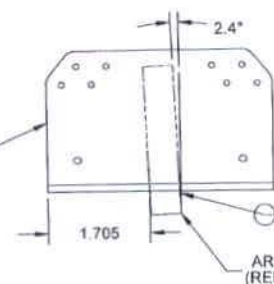
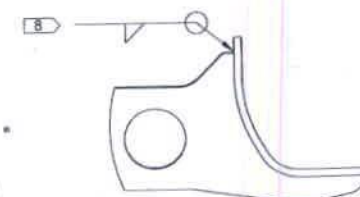


PLATE  
(REF)



ARM  
(REF)



**DETAIL B  
SCALE 1:2**

**PARTS LIST**

QTY -041	QTY -042	QTY -043	QTY -044	P/N	DESCRIPTION
X				D3560-041	ARM WELDMENT
	X			D3560-042	ARM WELDMENT
		X		D3560-043	ARM WELDMENT
			X	D3560-044	ARM WELDMENT
1	1	1	1	D2808	SPACER
1				D3560-1	ARM
	1			D3560-2	ARM
		1		D3560-3	ARM
			1	D3560-4	ARM
1	1	1	1	D3592-1	PLATE

REV.	DESCRIPTION	BY	DATE
D	ADD D2808 PRESS FIT NOTE, REDRAWN IN SOLIDWORKS	DC	07.11.16
C	REMOVE POWDER COAT	CP	07.06.19
B	REDESIGN AS WELDMENT, ADD POCKETS	CP	07.01.15
A	NEW ISSUE	CP	06.09.25
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE			
07.11.16			

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3560** REV. D  
SHEET 1 OF 5

TITLE **ARM WELDMENT** SCALE 1:4

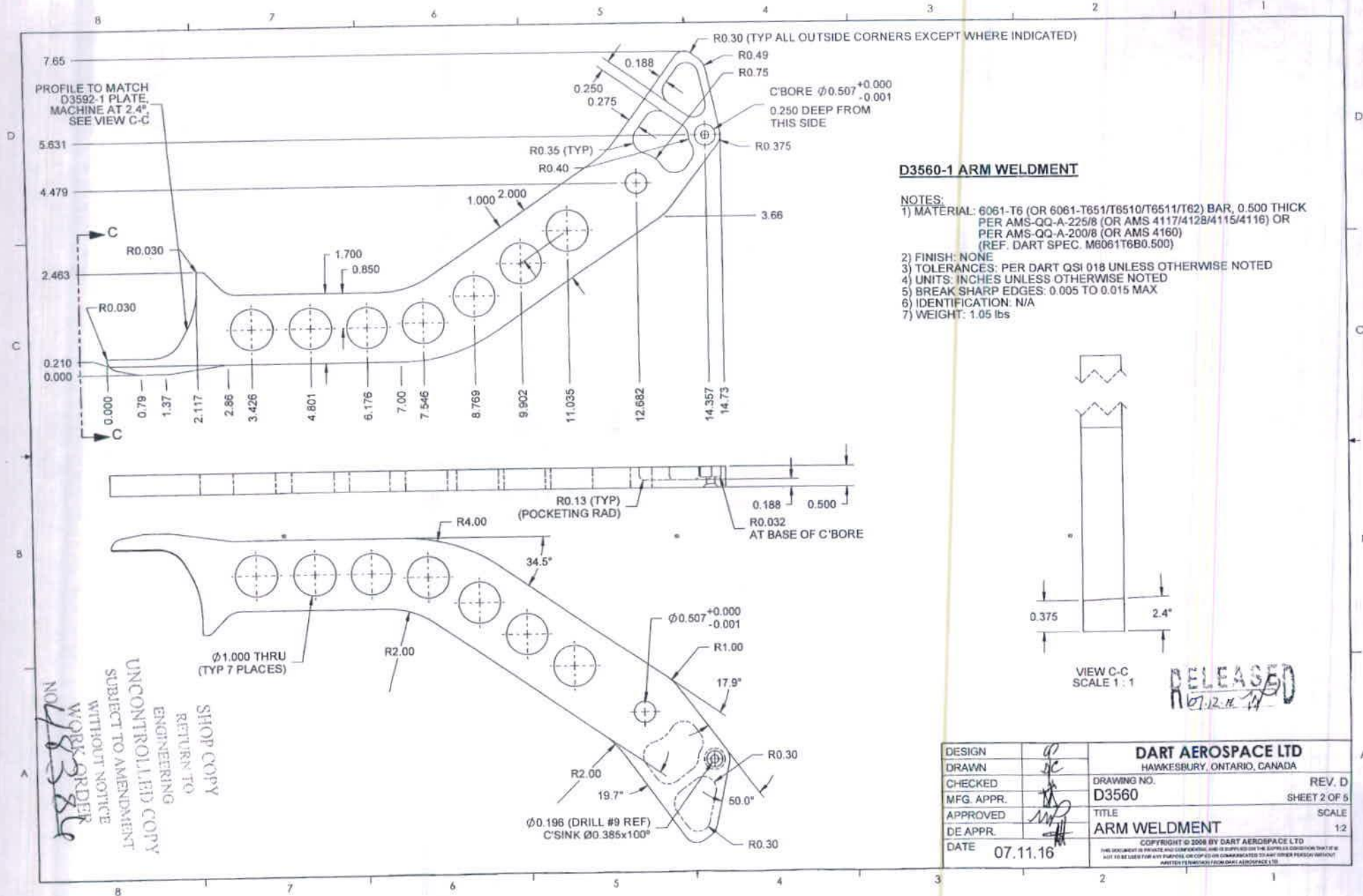
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WORK ORDER  
NO. 148384  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
SCALE 1:2

- NOTES:**
- 1) MATERIAL: N/A
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.23 lbs (TYP)
  - 8) WELDING: PER DART QSI 004







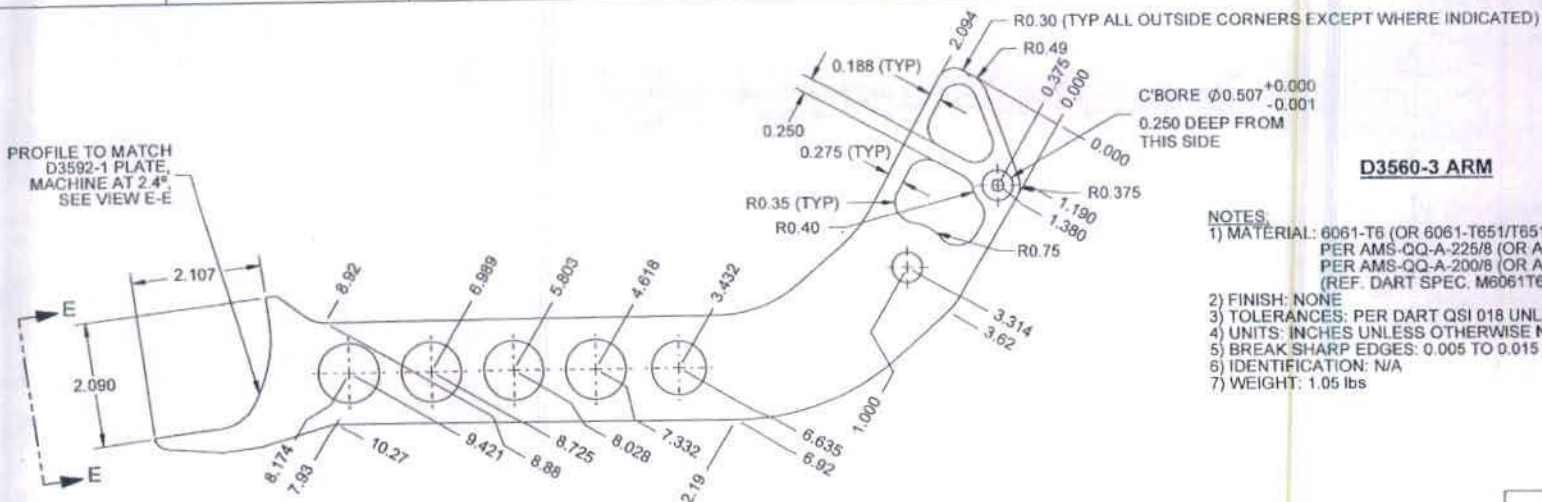








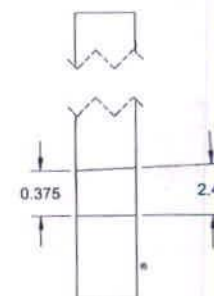
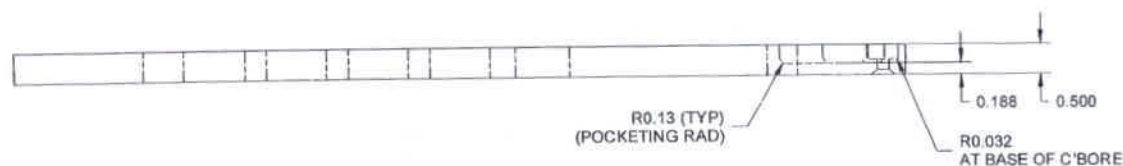
PROFILE TO MATCH  
D3592-1 PLATE  
MACHINE AT 2.4°  
SEE VIEW E-E



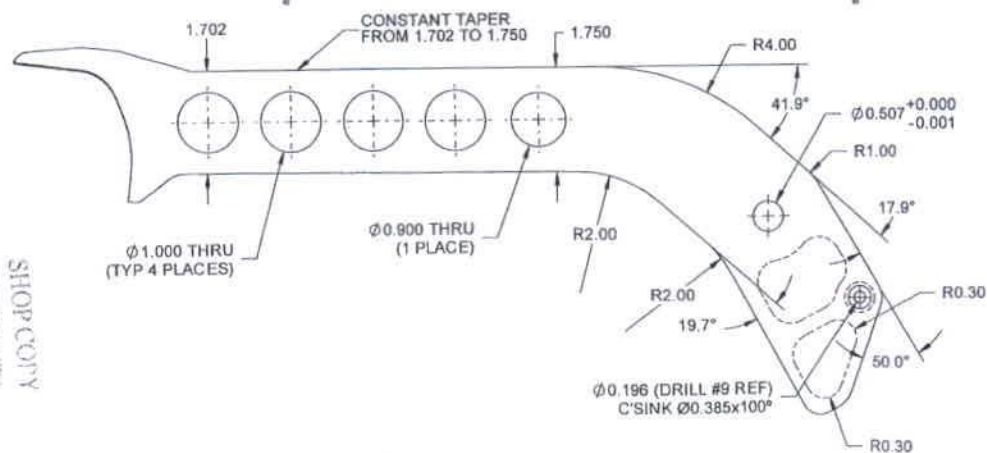
### D3560-3 ARM

#### NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.05 lbs



VIEW E-E  
SCALE 1:1

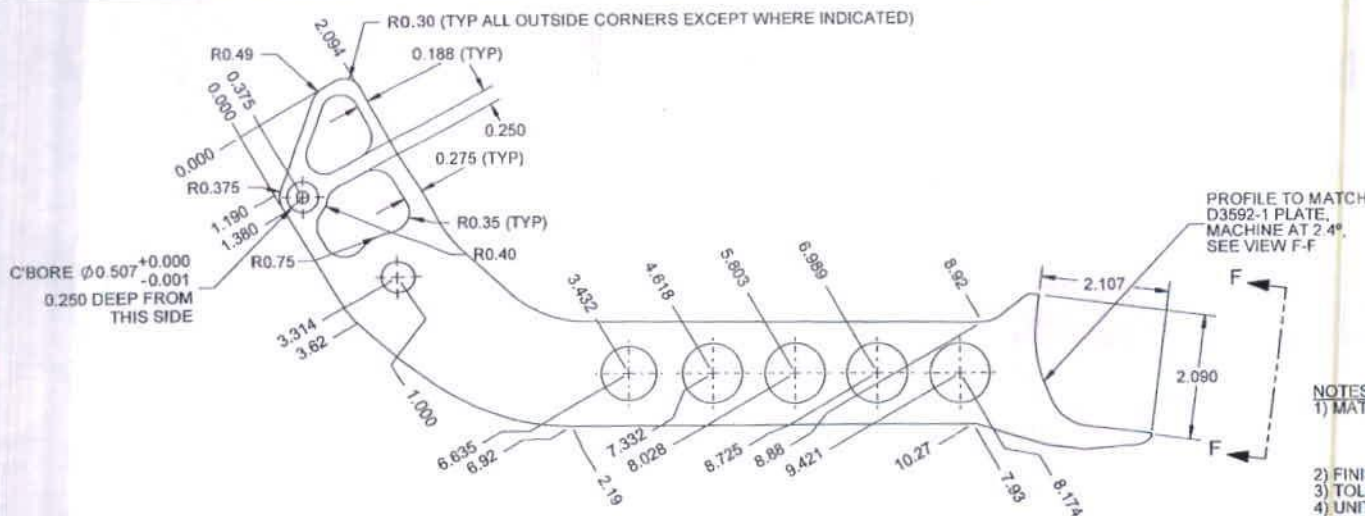


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07-12-14

DESIGN	AC	DART AEROSPACE LTD	
DRAWN	AC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MD	DRAWING NO.	REV. D
MFG. APPR.	MD	D3560	SHEET 4 OF 5
APPROVED	MD	TITLE	SCALE
DE APPR.	MD	ARM WELDMENT	1:2
DATE	07.11.16	COPYRIGHT © 2006 BY DART AEROSPACE LTD	
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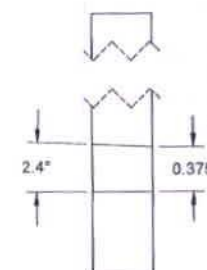
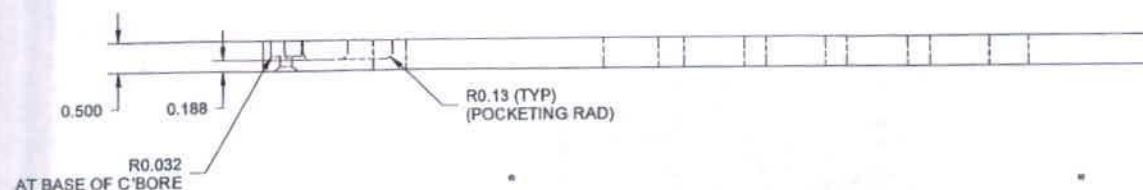
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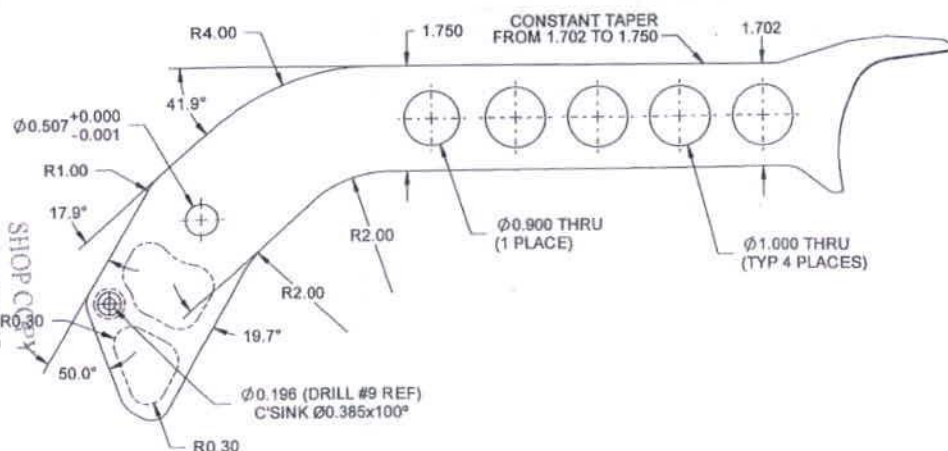
### D3560-4 ARM

- NOTES:
- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T652) BAR, 0.500 THICK PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR PER AMS-QQ-A-200/8 (OR AMS 4160) (REF. DART SPEC. M6061T6B0.500)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.05 lbs



VIEW F-F  
SCALE 1:1

RELEASED  
107-12-18-10



NO 143816  
WORK ORDER  
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DESIGN	JP	DART AEROSPACE LTD	
DRAWN	BC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JP	DRAWING NO.	REV. D
MFG. APPR.	JP	D3560	SHEET 5 OF 5
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	ARM WELDMENT	1:2
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